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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,488	01/06/2004	Susanne Klein	30002178-4	3532
22879	7590	06/29/2004	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			CALEY, MICHAEL H	
ART UNIT		PAPER NUMBER		2871

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Offic Action Summary</b>	Application No.	Applicant(s)
	10/751,488	KLEIN, SUSANNE
	Examiner Michael H. Caley	Art Unit 2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 January 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 01062004.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3 and 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of copending Application No. 10/083,505. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Regarding claims 1 and 8 of the present application, claim 3 of 10/083,505 discloses all of the proposed elements except for the display as having a display area. Claim 3 of 10/083,505, however, discloses a display secured in a casing. It is well known that conventional displays as proposed comprise a display area for viewing.

It would have been obvious or alternatively inherent of such a device to include a display area as proposed. One would have been motivated to include such a display area in the display disclosed in claim 1 to enable viewing and functional use of the device.

Regarding claim 2 of the present application, claim 3 of copending Application No. 10/083,505 the scrambling of the collector ends relative to the corresponding output ends.

Regarding claim 3 of the present application, claim 3 of copending Application No. 10/083,505 discloses all of the proposed limitations except for the light guiding medium as having a reflecting layer on the back surface. The examiner takes Official notice, however, that such a reflecting layer is a conventional means of increasing brightness within a display by reflecting otherwise scattered and absorbed light.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included such a reflecting layer as proposed. Such an addition would have been motivated by a desire to increase the brightness and/or decrease the power necessary to illuminate the display.

Claims 4-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 6 of copending Application No. 10/083,505. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Regarding claim 4 of the present application, claim 6 of 10/083,505 discloses all of the proposed elements except for the display as having a display area. Claim 6 of 10/083,505, however, discloses the device as a display. It is well known that conventional displays as proposed comprise a display area for viewing.

It would have been obvious or alternatively inherent of such a device to include a display area as proposed. One would have been motivated to include such a display area in the display disclosed in claim 4 to enable viewing and functional use of the device.

Regarding claim 5 of the present application, claim 6 of 10/083,505 discloses all of the proposed elements except for the output of each light pipe as having a quarter wave plate. The examiner takes Official notice that it is well known to pass input light to a liquid crystal display from a light pipe through a quarter wave plate in order to control the polarization characteristic of the light.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed a quarter wave plate at the output end of the light pipe as a means of controlling the polarization of the input light. Such an improvement would have been advantageous to most efficiently use the light in a reflective or transflective display using circular polarizers to increase the brightness and contrast of the display.

Regarding claim 6 of the present application, claim 6 of 10/083,505 discloses all of the proposed limitations except for the light pipes as formed from optical fibers. The examiner takes Official notice that it is well known in the art to use optical fibers for light pipes to illuminate a display.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used optical fibers as the light pipes proposed in claim 6 of 10/083,505. Optical fibers are a preferred method in the art of realizing such light pipes due to their flexible

nature and high light transfer efficiency. One would have been motivated to use optical fibers to construct the light pipes due to ease of manufacture and maximal efficiency.

Regarding claim 7 of the present application, claim 6 of 10/083,505 discloses the light guiding medium as responsive to electrical signals as proposed. Claim 6 of 10/083,505, however, fails to disclose a plurality of electrodes for applying the electric field. The examiner takes Official notice, however, that electrodes are a common means in the art of achieving the proposed electric field within a liquid crystal light guide.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used electrodes as proposed to apply an electric field to the liquid crystal light guide. One would have been motivated to use such electrodes to activate a controlled electric field such that only the light guide area corresponding to a defined area is affected. The use of such electrodes would have therefore been beneficial to achieve a high contrast in the display since only the liquid crystal of a defined area is affected due to the control of an electrode.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Soref (U.S. Patent No. 4,948,229).

Soref discloses a device having:

a planar light guiding medium formed of liquid crystal material and having a light emitting surface and one or more side faces disposed around the light emitting surface (Figure 1 element 20);

a plurality of light pipes, each light pipe having a collector end for collecting light an output end, the output ends being arranged along the side faces so as to introduce the collected light into the guiding medium (Figure 1 element 16);

wherein the output ends of the light pipes are distributed along the side face (Figure 1 element 16).

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Baker (U.S. Patent No. 4,720,172).

Baker discloses a device having:

a planar light guiding medium formed of liquid crystal material and having a light emitting surface and one or more side faces disposed around the light emitting surface (Figure 1 element 20);

a plurality of light pipes, each light pipe having a collector end for collecting light an output end, the output ends being arranged along the side faces so as to introduce the collected light into the guiding medium (Figure 1 element 16);

wherein the output ends of the light pipes are distributed evenly along the side face (Figure 1 element 16).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael H. Caley whose telephone number is (571) 272-2286. The examiner can normally be reached on M-F 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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mhc



TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER